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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,112

05/16/2005

Jeffrey Allen Cooper

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Robert D. Shedd, Patent Operations  
THOMSON Licensing LLC  
P.O. Box 5312  
Princeton, NJ 08543-5312

EXAMINER

PE, GEEPY

ART UNIT

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2621

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/535,112	COOPER, JEFFREY ALLEN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Geepy Pe	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/26/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 9/21/09, with respect to claims 5-7 and 9-15, have been fully considered but they are not persuasive.
2. Applicant's arguments with respect to claims 16-24, as filed on 9/21/09, have been considered but are moot in view of the new ground(s) of rejection.
3. Claims 5-7 and 9-15 remain rejected under 35 U.S.C. 102(b) as being anticipated by Krunz et al. ("Impact of video scheduling on bandwidth allocation for multiplexed MPEG streams"; already of record; hereinafter Krunz).
4. The Applicant presents one substantive argument(s) contending the Examiner's rejections of claims 5 and 15 under 35 U.S.C. 102(b) as being anticipated by Krunz, as was set forth in the Office Action of 7/28/09. However, after carefully reviewing the arguments presented and further scrutiny of applied reference, the Examiner must respectfully disagree and maintain the grounds of rejection for the reasons that follow.

With regards to the pending rejection of claims 5 and 15, the Applicant argues that Krunz does not teach that "...said video segments...plurality of channels..." and that "...the word or concept of 'channel' does not even occur once..." (Remarks of 9/21/09: pg. 9, lines 7-10). The Examiner respectfully disagrees. Krunz teaches a N number of MPEG streams which are synchronized and multiplexed (Krunz: pg. 349, section 3, lines 10-28). Accordingly, the Examiner maintains the applicability of the reference used. Furthermore, with regards to claim 8

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being incorporated within claim 5, it is still taught as discussed from the previous Office Action of 7/28/09.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action, dated 7/28/09.

7. Claims **5-7 and 9-17** are rejected under 35 U.S.C. 102(b) as being anticipated by Krunz.

With regards to **claims 5-7 and 9-15**, the rejections can be found on the previously presented Office Action of 7-28/09.

Re. **claim 16**, Krunz teaches said fixed number of frame positions is equal to the number of said plurality of channels, such that the integer multiple is equal to one (Krunz: pg. 348, right col., section 2, line 42).

Re. **claim 17**, the claim(s) recites analogous limitations to claim(s) 16 above, and is/are therefore rejected on the same premise.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims **18 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Krunz, in view of Roh et al. ("Starting Time Selection and Scheduling Methods For Minimum Cell Loss Ratio of Superposed VBR MPEG Video Traffic"; hereinafter Roh; already of record).

Re. **claim 18**, Krunz teaches staggering the frames, but does not teach that an optimum staggering order of said specified frame type is obtained by maintaining a distance between frames of said specified frame type at a maximum on average, in consideration of the number of said plurality of channels. However, in the same field of endeavor, Roh teaches staggering the pictures according to average power and cell loss ratio (CLR), which can be a maximum number of frames, on average (Roh: pg. 921, left col., lines 1-10) for the benefit of an efficient starting time of VBR MPEG videos (Roh: pg. 921, left col., lines 8-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that an optimum staggering order of said specified frame type is obtained by maintaining a distance between frames of said specified frame type at a maximum on average, in consideration of the number of said plurality of channels in the Krunz invention, as shown in Roh, for the benefit of

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an efficient starting time of VBR MPEG videos. The Krunz invention, now incorporating the Roh invention, has all the limitations of claim 18.

Re. **claim 19**, the claim(s) recites analogous limitations to claim(s) 18 above, and is/are therefore rejected on the same premise.

11. Claims **20-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Krunz, in view of Kaul et al. (U.S. Pat. 4,002,845; hereinafter Kaul).

Re. **claim 20**, Krunz does not explicitly teach that said causing means comprises a frame rate counter, a plurality of phase registers, and a plurality of comparators, wherein the frame rate counter has an output connected in signal communication with a first input of each of the plurality of comparators, and each of the plurality of phrase registers has a respective output that is connected in signal communication with a second input of a respective one of the plurality of comparators. However, Krunz does teach counting the frame and bit rates (Krunz: pg. 347, lines 1-5), which would suggest a frame rate counter, and having phase slots (Krunz: pg. 350, section 4.1, lines 1-17), which would suggest a plurality of phase registers. Furthermore, in the same field of endeavor, Kaul teaches means to compare (Kaul: Abstract) for the benefit of detecting a loss of synchronization (Kaul: Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that said causing means comprises a frame rate counter, a plurality of phase registers, and a plurality of comparators, wherein the frame rate counter has an output connected in signal communication with a first input of each of the plurality of comparators, and each of the plurality of phrase registers has a respective output that is connected in signal communication with a second input of a respective one of the plurality of comparators in the Krunz invention, as shown in Krunz and Kaul, for the benefit of detecting

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a loss of synchronization. The Krunz invention, now incorporating the Kaul invention, has all the limitations of claim 20.

Re. **claim 21**, Krunz, now incorporating Kaul, teaches that the video segments are operated on by corresponding ones of channel video encoders, and the frame rate counter synchronizes reset signals associated with the channel video encoders (Kaul: col. 2, lines 37-40).

Re. **claim 22**, Krunz, now incorporating Kaul, teaches that ones of the plurality of registers are loaded with frame offset values corresponding to a selected frame stagger for an associated one of the plurality of channels (Krunz: pg. 350, section 4.1, lines 1-5: a frame delay to cause a stagger).

Re. **claim 23**, Krunz, now incorporating Kaul, teaches that ones of the plurality of comparators are functionally associated with ones of the channel video encoders, the plurality of comparators being operative to provide a timing signal as an output corresponding to the selected frame stagger for the associated one of the plurality of channels (Kaul: Fig. 3: i.e., there are clocks which provide timing signals).

Re. **claim 24**, Krunz, now incorporating Kaul, teaches a plurality of gates adapted to receive as inputs an encoder reset signal level and an output of ones of the plurality of comparators and to provide as an output a reset signal for an associated one of the channel video encoders, wherein respective ones of the channel video encoders are reset at respective timing points corresponding to the selected frame stagger for a respective one of the plurality of channels (Kaul: Fig. 3: a plurality of gates are provided to receive signals).

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***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geepy Pe whose telephone number is (571)-270-3703. The examiner can normally be reached on Monday - Friday, 7:00AM - 3:30PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. P./

/Geepy Pe/

Examiner, Art Unit 2621

/Andy S. Rao/

Primary Examiner, Art Unit 2621

November 9, 2009